Application No.: 10/702,372   Docket No.: JCLA7897-D

In The Claims:

Claims 1-38 (canceled)

Claim 39 (currently amended) A method of forming a non-gate diode of a SOI, comprising:

providing an SOI with a substrate, an insulating layer and a silicon layer sequentially stacked together;

forming a pair of isolating structures in the silicon layer, so as to define a well region therebetween;

forming a lightly doped region in the well region, the lightly doped region comprising two neighboring lightly doped P-type region and N-type regions; and

forming a P-type heavily doped region and an N-type heavily doped region in the well region, wherein

the P-type heavily doped region is configured between and connects the lightly doped P-type region and one isolating structure, and the N-type heave heavily doped region is configured between and connects the lightly doped N-type region and the other isolating structure.

Claim 40-45 (canceled)

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Claim 46 (original) A method of forming a non-gate diode in a CMOS process, comprising:

providing a substrate having a well region therein;

forming a pair of blocking isolation structures in the substrate;

forming a first type doped region located in the well region and between the blocking isolation structures; and

forming a pair of second type doped regions located in the well region and respectively adjacent to the blocking isolation structure, wherein each second type doped region is separated from the first type doped region by the well.

Claim 47 (original) The method according to claim 46, wherein the first type doped region and the second type doped region are implanted with P-type and N-type ions respectively.

Claim 48 (original) The method according to claim 46, wherein the well region is lightly implanted with a P-type ion.

Claim 49 (previously presented) The method according to claim 46, wherein each second type doped region and the first type doped region defines a spacing, separating the second type doped region from the first type doped region.

Claim 50 (previously presented) The method according to claim 49, wherein the spacing is undoped.

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